

NAME \_\_\_\_\_

DATE \_\_\_\_\_

PERIOD \_\_\_\_\_

# Chapter 5 Test Practice

SCORE \_\_\_\_\_

For Questions 1–6, solve each inequality.

1.  $x - 7 > 3$

$+7$   $+7$   $\rightarrow x > 10$

2.  $7 + z < 3$

$-7$   $-7$   $\rightarrow z < -4$

3.  $\frac{b}{8} > -\frac{1}{5}$

$\cdot 8$   $\cdot 8$   $\rightarrow b > -\frac{8}{5}$

4.  $\frac{t}{6} \geq 14$

$\cdot 6$   $\cdot 6$   $\rightarrow t \geq 84$

5.  $-19.8 \geq 3.6y$

$\div 3.6$   $\div 3.6$   $\rightarrow -5.5 \geq y$

6.  $-4r < 22$

$\div -4$   $\div -4$

7. The sum of two consecutive integers is at most 17. What is the greatest possible value for the greater integer?

consecutive integers  $\rightarrow$

$x$

$x + 1$

$x + (x + 1) \leq 17$   $\textcircled{?}$   $\frac{9}{1}$

$2x + 1 \leq 17$   $\rightarrow$   $\frac{2x}{2} \leq \frac{16}{2}$

$x \leq 8$

1.  $x > 10$

2.  $z < -4$

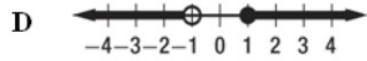
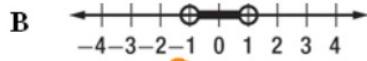
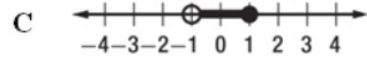
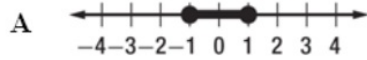
3.  $b > -\frac{8}{5}$

4.  $t \geq 84$

5.  $y \leq -5.5$

6.  $r > -\frac{11}{2}$   $\text{or}$   $-5\frac{1}{2}$

8. Which of the following is the graph of the solution set of  $m > -1$  and  $m \leq 1$ ?



$m > -$

9. Which compound inequality has the solution set shown in the graph?

F  $x < -1$  or  $x > 3$

G  $x > -1$  or  $x < 3$



H  $x > -1$  or  $x \geq 3$

J  $x \leq -1$  or  $x \geq 3$

$2a > 8$

$a < -1$

10. Which of the following is the solution set of  $2a + 1 > 9$  or  $a < -1$ ?

A  $\{a \mid a < -1 \text{ or } a > 4\}$

B  $\{a \mid a \leq -1 \text{ or } a \geq 4\}$

C  $\{a \mid -1 \leq a \leq 4\}$

D  $\{a \mid a < -1 \text{ or } a > 5\}$

$a > 4$

6. \_\_\_\_\_

7. \_\_\_\_\_

8. C

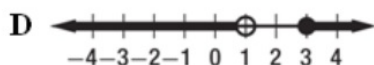
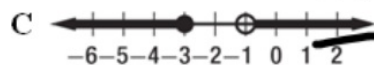
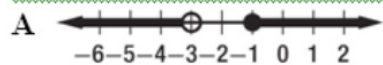
9. J

10. A

11. \_\_\_\_\_

11. Which of the following is the graph of the solution set of

$7a + 3 < a - 15$  or  $5a + 3 < 8a$ ?



Chapter 5

$$\begin{array}{r} 5a + 3 < 8a \\ -5a \quad -5a \\ \hline 3 < 3a \\ \hline 3 \quad 3 \\ \hline \end{array}$$

$a < 1$  or  $a \leq -3$

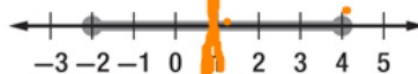
$$\begin{array}{r} 7a + 3 < a - 15 \\ -a - 3 \quad -a - 15 \\ \hline -a - 3 < -a - 15 \\ \hline \end{array}$$

$$\begin{array}{r} 6a \leq -18 \\ \hline a \leq -3 \end{array}$$

Glencoe Algebra 1

# Chapter 5 Test Practice (continued)

12. Which inequality corresponds to the graph shown?



F  $|x - 3| \leq 1$

H  $|x - 3| \geq 1$

G  $|x - 1| \leq 3$

J  $|x - 1| \geq 3$

13. Solve the inequality. Then graph the solution set.

$|3 - 2x| \geq 1$

$$\begin{array}{r} 3 - 2x \geq 1 \\ -3 \quad -3 \end{array}$$

$$\begin{array}{r} -2x \geq -2 \\ \hline -2 \quad -2 \end{array}$$

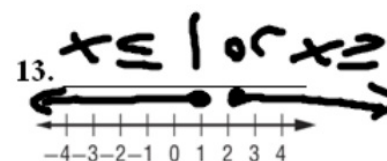
$$x \leq 1$$

$$\begin{array}{r} 3 - 2x \leq -1 \\ -3 \quad -3 \end{array}$$

$$\begin{array}{r} -2x \leq -4 \\ \hline -2 \quad -2 \end{array}$$

$$x \geq 2$$

12. G



14. \_\_\_\_\_

15. \_\_\_\_\_

16. \_\_\_\_\_

14. Ian has \$6000. He wants to buy a car within \$1500 of this amount. Define a variable, write an open sentence, and find the range of car prices.

$6000 - 1500$  }  $6000 + 1500$

$4500 \leq x \leq 7500$

15. C

15. Which ordered pair is part of the solution set of the inequality  $3 - y > 2x$ ?

- A (1, 1)      B (5, -3)      C (-3, 5)      D (4, 0)

$-2 > -6$   
yes!

$3 > 8$  NO

16. What is the inequality shown in the graph?



16.  $y < x - 1$

$-3 < 0 - 1$   
 $-3 < -1$  true

17. **EXPENSES** Camille has no more than \$20.00 to spend each week for lunch and bus fare. Lunch costs \$3.00 each day, and bus fare is \$0.75 each ride. Write an inequality for this situation.

$3x + .75y \leq 20$

17. \_\_\_\_\_

17. **EXPENSES** Camille has no more than \$20.00 to spend each week for lunch and bus fare. Lunch costs \$3.00 each day, and bus fare is \$0.75 each ride. Write an inequality for this situation.

$$0 + 3 < -2 - 4$$

$$6 + 3 < \frac{1}{2}(-5) - 4$$

17. \_\_\_\_\_  
18. \_\_\_\_\_  
19. \_\_\_\_\_  
20. \_\_\_\_\_

choose a point

18. Determine which of the ordered pairs are a part of the solution of  $y + 3 \leq \frac{1}{2}x - 4$ .

F (2, 3)

G (-4, 0)

~~H (-2, 2)~~

J (-2, 1)

19. Which inequality has a solution set of  $\{x \mid x < -1 \text{ and } x > -4\}$ ?

A  $|2x + 5| < 3$

C  $|2x + 5| > -3$

B  ~~$|2x + 5| > 3$~~

D  ~~$|2x + 5| > -3$~~

$$4 < -1$$

20. Laurie and Maya sold at most \$31 worth of get-well and friendship cards. The friendship cards,  $x$ , were sold for \$2.50 each and the get-well cards,  $y$ , were sold for \$2 each. Which point represents a reasonable number of cards sold?

F (10, 10)

G (15, 10)

H (8, 10)

J (10, 8)

**Bonus** I dunno...?

$$2.5x + 2y \leq 31$$

$$25 + 16 \leq 31$$

B: